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REMARKS

Applicant wishes to thank the Examiner for the detailed remarks and the withdrawal of the 35 U.S.C. §112 and 35 U.S.C. §103 rejections over *Kanski* in view of *Fink*. Claims 1, 2, 4, 5, 8, 9, 13, 19, and 27-36 remain pending.

35 U.S.C. §103

Claims 1, 2, 4, 5, 31, and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Kanski*. (2309172) in view of *Maslov* (US 20050184689). Applicant respectfully traverses these rejections. The Examiner admits that:

In summary, *Kanski* teaches the invention as claimed except a processor and a sensor

system in communication with the processor. See the Board decision on April 29, 2009.

Notably, the primary goal of *Kanski* is vibration generation for the treatment of granular materials.

This invention relates to processing vibrating machines, such as screens, separating tables, conveyors and similar machines. Generally defined, the object of the present invention is to propose a simple apparatus by means of which it is possible to obtain a complex vibratory motion, substantially a combination of a simple gyratory vibration with a vibration produced by a mass center provided with a planetary motion.

[Col. 1, lines 1-9]

The importance of application of vibration methods to the treatment of granular materials is well known. These methods are mainly applied for such operations as sizing, scalping and similar operations usually defined by screening. Another important application of these methods relates to the separation of bulk materials composed of particles having different physical properties such as specific gravity, surface characteristics, shape of the particles, etc. The action of the vibration in the aforementioned processes is extremely complex, and extensive research work made by many authors and by me shows that for a given material and setting of the machine firstly the geometrical and dynamical type of the vibrations to which the material is subjected have a fundamental importance in the results obtained; secondly, in many operations even the slightest changes in the type or direction of the vibration greatly influence the efficiency of the operation. In this respect it is obvious that a vibrating processing machine should be provided with as many adjustable characteristics as possible.

[Col. 2, lines 31-53]

The entire purpose of *Kanski* is to generate vibration. The adjustable characteristics are to provide particular vibration treatment of the granular materials and no processor or sensor system is even required.

The Examiner relies upon *Maslov* as follows:

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Maslov teaches the processor (FIG. 21; ¶¶ 22, 42, 60, 72, 171, 240, 263, and 318) and the sensor system 62, 66, 45, 146, *etc.* (FIGS. 16 and 20; ¶¶ 170, 171, 239, 241, 244, 245, 258, and 259; claims 11, 22, and 35) in communication with the processor, wherein the processor controls the power source/motor (¶¶ 60 and 72) in order to, *inter alia*, continuously vary the phase and magnitude (¶¶ 266 and 286) of the force from the generator (¶¶ 187 and 314; claim 24). As noted, Maslov's force broadly includes the vibratory inertial force.

*Maslov* is directed only to adaptive electric motors which provide improved performance and efficiency. Thus, even if the *Maslov* electric motor was utilized to drive the vibrating processing machine of *Kanski*, the proposed combination would still be directed to a vibrating processing machine - perhaps with but greater adjustable characteristics than *Kanski* alone would otherwise provide. Nonetheless, the proposed combination would still generate vibration with adjustable characteristics as desired by *Kanski*.

Moreover, *Maslov* fails even to disclose or suggest a sensor system which can sense externally generated vibratory forces. Notably, all the sensors to which the Examiner refers as the *Maslov* sensor systems 62, 66, 45, 146, *etc.*, are motor operation sensors which are internal to the electric motor itself.

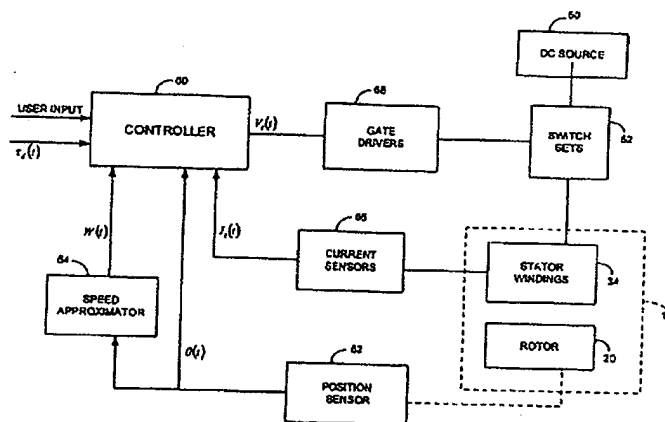


Figure 16

That is, the sensors of *Maslov* communicate only with internal motor components such as the stator windings 34 and the rotor 20 so as to sense operational parameters and control the electric motor itself.

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[0239] The controller 60 may respond to feedback signals received from a position sensor 62, and also to a speed approximator 50. Current in each phase winding 34 may be sensed by one of seven current sensors 66, and the output for each phase winding may be provided to the controller 60. A Hall-effect current sensor, such as F.W. Bell SM-15, may be used. In addition, the controller 60 may be able to receive various other inputs, as shown in FIG. 12.

[0241] In the embodiment shown in FIG. 16 the position sensor 62 is schematically represented by a single unit. Alternatively, several sensors may be appropriately positioned at stator sections along the air gap to detect rotor magnet rotation. The position sensor 62 may be any known magnetic sensing devices (such as Allegro Microsystems 92B5308 or another Hall effect device), a giant magneto resistive (GMR) sensor, a reed switch, a pulse wire sensor including an amorphous sensor, a resolver or an optical, magnetic, inductive or capacitive sensor.

The sensor system is therefore, even under the Examiner's interpretation, simply not operable to sense externally generated vibratory forces.

Applicant specifically claims:

said processor controls said power source to drive said crank such that a phase and magnitude of the vibratory inertial force is continuously varied to **reduce an externally generated vibratory force sensed by said sensor system.**

The proposed combination simply cannot teach this feature as the Examiner's proposed combination is not concerned whatsoever with externally generated vibratory forces sensed by a sensor system and certainly is not concerned with **reducing** such externally generated vibratory forces. Applicant respectfully requests reconsideration of this rejection for at least this reason.

Applicant respectfully submits that the Examiner's proposed combination – even if proper – fails to disclose or suggest Applicant's sensor system in any way as well.

Claims 33-36 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Kanski* in view of *Maslov* as applied to claim 1 and further in view of *Kotoulas* (20020117579). Applicant respectfully traverses this rejection as there is absolutely no teaching, suggestion, motivation, or reason to combine *Kotoulas* with *Kanski* in view of *Maslov* as proposed. As discussed above, the sensor system of *Maslov* is completely internal to the electric motor and concerned only with operations of the electric motor itself. There is simply no reason to locate internal electric motor

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operation and control sensor systems which control operation of an electric motor as disclosed by *Maslov* to another area of an aircraft.

It is improper to modify the base reference in such a way that it ruins the goal or the function of the base reference. The following language is from MPEP 2143.01(V):

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The Examiner's proposed modification would ruin the function of *Maslov* because the Examiner is essentially removing the sensor system from *Maslov* which provides for the basic operation of the *Maslov* electric motor. This is improper. Applicant respectfully requests reconsideration of this rejection for at least this reason.

Simply, there is no motivation to combine the references as proposed by the Examiner other than following the knowledge disclosed within the present invention. That is, the Examiner is combining various components from a multiple of disparate references.

In fact, the Examiner's proposed combination actually undermines the principle goal and ruins the utility of the primary reference. This is impermissible usage of hindsight in an attempt to recreate Applicant's device. Applicant respectfully submits that the claims are properly allowable for at least this reason.

Applicant respectfully submits that this case is in condition for allowance. If the Examiner believes that a teleconference will facilitate moving this case forward to being issued, Applicant's representative can be contacted at the number indicated below.

Respectfully Submitted,

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